



## MEMORANDUM

Agenda Item No. 7(J)(1)(D)

TO: Honorable Chairperson Barbara Carey-Shuler, Ed.D.  
and Members, Board of County Commissioners

DATE: December 4, 2003

FROM:   
George M. Burgess  
County Manager

SUBJECT: First Supplemental Agreement  
to the PSA between HNTB &  
Miami-Dade County  
Contract No. TA00-FEIS

The attached Supplemental Agreement No. 1 to the Professional Services Agreement between HNTB Corporation and Miami-Dade County has been prepared by Miami-Dade Transit (MDT) and is recommended for approval.

**MODIFICATION No.**

One

**PROJECT:**

North Corridor Final Environmental Impact Statement (FEIS)

**PROJECT NUMBER:**

TA00-FEIS

**PROJECT LOCATION:**

Rail Corridor along N.W. 27<sup>th</sup> Avenue between N.W. 62<sup>nd</sup> Street and the Broward County Line

**PROJECT DESCRIPTION:**

Re-evaluation of the North Corridor FEIS

The North Corridor Locally Preferred Alternative (LPA) was revised by the Metropolitan Planning Organization (MPO) via Resolution No. R-31-99 in October 1999 from a Metrorail Extension to a lower cost Bus Rapid Transit (BRT) alternative due to a lack of a local source of funding.

A Professional Services Agreement in the amount of \$700,000 for a BRT alternative study was approved by the County Manager on August 17, 2001, under the Expedite Ordinance Procedures. The two-year contract expired on August 17, 2003.

In October 2002 the MPO approved, via Resolution No. 34-02, to change the North Corridor Transit Corridor Project from Priority II to Priority I in the 2025 Long Range Transportation Plan, and to utilize funds identified for the BRT project towards the Metrorail project, contingent on voter approval of the half-cent sales tax transit initiative referendum.

On November 5, 2002, the voters of Miami-Dade County overwhelmingly approved the People's Transportation Plan calling for a half-cent sales tax increase dedicated to transportation.

In December 2002, responding to community preferences, the MPO Board approved, via Resolution No. 45-02, to re-evaluate the May 1999 FEIS and move forward with a Metrorail extension as the Locally Preferred Alternative.

Consequently, the BRT study was discontinued to proceed with the Metrorail alternative. The \$390,563.88 that remained in the HNTB contract was applied to the new task to re-evaluate the Metrorail alternative.

A re-evaluation of the FEIS is necessary to conform to Federal Transit Administration (FTA) and Environmental Protection Agency (EPA) procedures for continued project funding and development for the North Corridor.

|   |   |
|---|---|
| <b>FIRM:</b>                                    | HNTB Corporation  |
| <b>LOCATION OF FIRM:</b>                        | 8700 W. Flagler Street, Suite 200<br>Miami, Florida 33174   |
| <b>COMPANY PRINCIPALS:</b>                      | Jose de Almagro, P.E., Vice President<br>James P. Anglin, P.E., Senior Vice President/QAQC<br>Jose Diaz, AIA., Vice President   |
| <b>GENDER/ETHNICITY:</b>                        | Male/Non-Hispanic   |
| <b>HOW LONG IN BUSINESS:</b>                    | Since 1916 (87 years)   |
| <b>PREVIOUS AGREEMENTS<br/>WITH THE COUNTY:</b> | Miami-Dade Aviation Dept. – Miscellaneous Engineering<br>Services since 1985. Plus or minus \$5 million a year.<br>Department of Environmental Resource Management-<br>FEMA DORM – Drainage project \$500,000 |
| <b>AGREEMENT AMOUNT:</b>                        | \$700,000.00  |
| <b>AMOUNT OF RECOMMENDED<br/>MODIFICATION:</b>  | \$431,519.12  |

**ADJUSTED AGREEMENT**

**AMOUNT:** \$1,131,519.12

**PERCENTAGE CHANGE THIS  
MODIFICATION:**

62%

**DURATION OF AGREEMENT:**

2 years (Expired August 17, 2003)

**REVISED DURATION:**

3 years (Expires August 17, 2004)

**JUSTIFICATION:**

This supplemental agreement is necessary to provide the required funding to complete the re-evaluation of the 1999 North Corridor FEIS based on the Metrorail Locally Preferred Alternative (LPA).

\$309,436.12 was paid for the BRT effort out of HNTB's \$700,000 contract, leaving \$390,563.88 to be applied towards the Metrorail alternative re-evaluation.

A Notice to Proceed (NTP) for Work Order #2 Part-1 in the amount of \$390,500 was issued on February 5, 2003 and basically used the remaining funds in the contract. This allowed the consultant to have some of the funds to proceed with the Metrorail LPA re-evaluation. However, this amount did not cover the entire cost for the Scope of Work (submitted in December and revised in April to include the route alignment evaluation) that was needed to implement the work described. It was agreed with HNTB that a Supplemental Agreement was to follow to cover the remaining portion of \$431,519.12.

As the study update began, the County requested HNTB to revisit the route alignment because of right-of-way issues and other impacts. In April 2003 the consultant submitted and negotiated an additional scope of work to add the realignment related effort. This additional work called for a contract time extension of one year to August 2004.

The total cost of the re-evaluation of the 1999 Metrorail FEIS is \$822,083. This includes \$266,514 for the County-requested review of the route's alignment and \$555,569 for the actual re-evaluation of the FEIS.

The additional cost to complete both the FEIS re-evaluation of the Metrorail alternative and the re-alignment review effort totals \$431,519.12.

This contract lapsed without the necessary time and funding extension due to recent organizational changes and the lack of a Transportation Committee meeting in September.


**DBE GOAL:** 25%

**USING AGENCY:** Miami-Dade Transit

**FUNDING SOURCE:** Federal Transit Administration (FTA) – 100%.

**FISCAL IMPACT:** The cost of this supplemental agreement is to be funded by a formula grant consisting of 100% federal.

**APPROVED AS TO LEGAL  
SUFFICIENCY:**

  
Bruce Libhaber

11/3/03  
Date

  
Surface Transportation Manager

11/4/03  
Date



# MEMORANDUM

(Revised)

**TO:** Hon. Chairperson Barbara Carey-Shuler, Ed.D. **DATE:** December 4, 2003  
and Members, Board of County Commissioners

**FROM:** Robert A. Ginsburg  
County Attorney

**SUBJECT:** Agenda Item No. 7(J)(1)(D)

Please note any items checked.

- ☐ "4-Day Rule" ("3-Day Rule" for committees) applicable if raised
- ☐ 6 weeks required between first reading and public hearing
- ☐ 4 weeks notification to municipal officials required prior to public hearing
- ☐ Decreases revenues or increases expenditures without balancing budget
- ☐ Budget required
- ☐ Statement of fiscal impact required
- ☐ Bid waiver requiring County Manager's written recommendation
- ☐ Ordinance creating a new board requires detailed County Manager's report for public hearing
- ☐ Housekeeping item (no policy decision required)
- ☐ No committee review

5

Approved \_\_\_\_\_ Mayor

Agenda Item No. 7(J)(1)(D)

Veto \_\_\_\_\_

12-4-03

Override \_\_\_\_\_

RESOLUTION NO. \_\_\_\_\_

RESOLUTION AUTHORIZING EXECUTION OF THE  
FIRST SUPPLEMENTAL AGREEMENT TO THE  
PROFESSIONAL SERVICES AGREEMENT BETWEEN  
MIAMI-DADE COUNTY AND HNTB CORPORATION  
FOR ADDITIONAL WORK RE-EVALUATING THE  
RAIL ALTERNATIVE AND THE ROUTE ALIGNMENT  
FOR THE NORTH CORRIDOR, IN CONNECTION  
WITH THE NORTH CORRIDOR TRANSIT STUDY

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board approves the execution of the First Supplemental Agreement to the Professional Services Agreement with HNTB Corporation for additional work re-evaluating the North Corridor rail alternative and route alignment; and to correspondingly increase the contract amount; in substantially the form attached hereto and made a part thereof; and authorizes the County Manager to execute same for and on behalf of Miami-Dade County and to exercise the cancellation and renewal provisions contained in the agreement.

The foregoing resolution was offered by Commissioner  
, who moved its adoption. The motion was  
seconded by Commissioner  
and upon being put to a vote, the vote was as follows:

|                                       |                  |
|---------------------------------------|------------------|
| Dr. Barbara Carey-Shuler, Chairperson |                  |
| Katy Sorenson, Vice-Chairperson       |                  |
| Bruno A. Barreiro                     | Jose "Pepe" Diaz |
| Betty T. Ferguson                     | Sally A. Heyman  |
| Joe A. Martinez                       | Jimmy L. Morales |
| Dennis C. Moss                        | Dorrin D. Rolle  |
| Natacha Seijas                        | Rebeca Sosa      |
| Sen. Javier D. Souto                  |                  |

The Chairperson thereupon declared the resolution duly passed and adopted this 4th day of December, 2003. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA  
BY ITS BOARD OF COUNTY  
COMMISSIONERS

HARVEY RUVIN, CLERK

Approved by County Attorney as  
to form and legal sufficiency.

By: \_\_\_\_\_  
Deputy Clerk

Bruce Libhaber

FIRST SUPPLEMENTAL AGREEMENT TO THE  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN MIAMI-DADE COUNTY, FLORIDA  
AND HNTB CORPORATION

This First Supplemental Agreement is made and entered into as of the \_\_\_\_ day of \_\_\_\_\_, 2003 by and between Miami-Dade County, Florida, a public body, (hereinafter referred to as the COUNTY), and HNTB Corporation, (hereinafter referred to as the CONSULTANT).

W I T N E S S E T H

WHEREAS, the Board of County Commissioners on August 17, 2001 entered into a Professional Services Agreement with HNTB Corporation to conduct the North Corridor Final Environmental Impact Statement (FEIS) based on the bus rapid transit (BRT) Locally Preferred Alternative (LPA) as designated by the Metropolitan Planning Organization (MPO) on December 9, 1999.

WHEREAS, the Metropolitan Planning Organization (MPO) Board on December, 2002 approved via Resolution #45-02, the re-evaluation of the 1999 FEIS North Corridor rail alternative and route alignment; and

WHEREAS, the parties wish to make certain revisions in the agreement as provided below.

NOW, THEREFORE, the parties hereto do mutually agree to amend the Professional Services Agreement as follows:

**SECTION II. PROFESSIONAL SERVICES**

Discontinue all work related to the North Corridor Final Environmental Impact Statement (FEIS) for bus rapid transit (BRT) alternative. Conduct a re-evaluation of the May 1999 Final Environmental Impact Statement (FEIS), including rail alternative and route alignment. This re-evaluation will update all the



necessary information related to the LPA as required by federal regulations, and to obtain a Record of Decision (ROD). The re-evaluation and completion of the FEIS will be conducted in accordance with Federal Transit Administration (FTA) and Environmental Protection Agency (EPA) guidelines and procedures. The FEIS will be based on the scope of services proposal dated December 18, 2002 and revised April, 2003 and incorporated for reference herein. Using the \$390,563.88 unspent funds left from the BRT re-evaluation, Work Order #2 Part-1 and a Notice to Proceed were issued on February 5, 2003.

The revised scope includes the additional work necessary to update the final environmental analysis and reevaluate the alignment proposed in the May 1999 FEIS. The detailed Scope of Work for this project is included in this Supplemental Agreement as ATTACHMENT A-1. The following, but without limitation, are a number of the major scope items:

- Update all of the socio-economic factors presented in the earlier draft FEIS;
- Prepare Opening Year (2010) model projections for transit ridership and traffic based on the implementation schedule for the People's Transportation Plan (PTP);
- Prepare Build-Out (2025) model projections for transit ridership and traffic based on implementation schedule for the PTP;
- Develop new feeder bus plans based upon the PTP;
- Update the capital unit costs and develop new Operating and Maintenance (O&M) costs;
- Provide an analysis for the Locally Preferred Alternative (LPA) consistent with FTA and EPA guidelines and procedures;
- Analyze the rail alignment to minimize right-of-way impacts and finalize the rail alignment, stations and park-ride facilities based upon the latest conditions in the corridor; and,
- Revise the right-of-way cost estimate and provide a revised project budget.

Deliverables (The consultant shall deliver to the County the necessary copies of the following deliverables in a form and content acceptable to the County and FTA prior to the completion of the work):

- A- Project Management/Project Administration
- A- Public Involvement Plan/Summary
- B- Environmental Analysis
- B- Social and Economic Impacts
- B- Identify/Design Mitigation Measures
- C- Travel Demand Model
- D- Traffic Analysis
- E- Preliminary Engineering
- E- Refine the Preferred Alternative
- F- Capital Cost and Construction Phasing
- F- Project Implementation Plans
- G- Draft Final Environmental Impact Statement (FEIS) Report

The Revised FEIS is scheduled to be completed by December 19, 2003.

### **SECTION III. TIME FOR COMPLETION**

The revised Contract completion date is August 17, 2004.

### **SECTION IV. COMPENSATION**

Revise the contract amount from \$700,000 to \$1,131,519.12 or an increase of \$431,519.12; as defined in attachment B-1.

### **OTHER PROVISIONS**

Except as specified herein, all provisions of the Professional Services Agreement shall remain unchanged, including the 25% DBE goal.

IN WITNESS WHEREOF, the parties hereto have executed this Contract Supplemental Agreement on the date and year first above written.


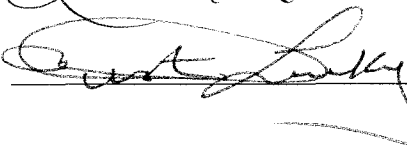
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DADE COUNTY, FLORIDA  
BY ITS BOARD OF  
COUNTY COMMISSIONERS

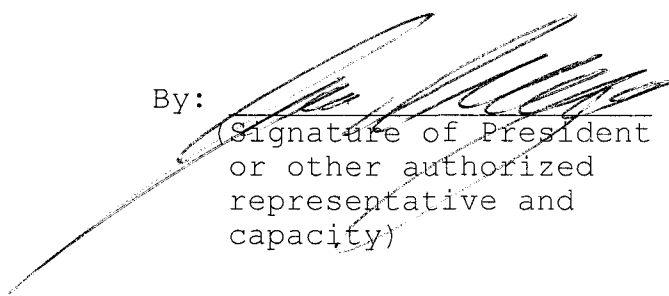
HARVEY RUVIN, CLERK

By: \_\_\_\_\_

BY: \_\_\_\_\_  
County Manager

Witnesseth:  
  


HNTB Corporation

By:   
(Signature of President  
or other authorized  
representative and  
capacity)

## ATTACHMENT A-1

# **NORTH CORRIDOR METRORAIL FEIS**

## **FINAL ENVIRONMENTAL IMPACT STATEMENT**

### **DESCRIPTION**

This scope of work as requested by Miami-Dade Transit (MDT) is to proceed with the update of the Final Environmental Impact Statement (FEIS) for the Locally Preferred Alternative (LPA) adopted by the Miami-Dade Metropolitan Planning Organization (MPO) in 1998 and reconfirmed at their December 2002 meeting. The FEIS update will respond to all comments raised during the review of the DEIS dated January 1998 and to those issues that are critical to the selected LPA, the Baseline Alternative and the No-Build Alternative.

The proposed Miami North Corridor MetroRail Study will be expanded to include the program elements described below. This scope of services is identified as the North Corridor Alternatives Analysis between Miami-Dade Transit, hereafter referred to as MDT, and HNTB Corporation, hereafter referred to as the CONSULTANT.

The CONSULTANT will provide professional engineering, planning, architectural, and other professional and technical services required to accomplish the tasks that are described in detail herein.

## **SCOPE OF WORK**

This scope includes the additional work necessary to update the environmental analysis and reevaluate the alignment proposed in the original, unsigned FEIS. The documents will be brought to the level of detail necessary to submit a request to the Federal Transit Authority (FTA) to receive a Record of Decision (ROD). A detailed description of the included work is provided below.

The Scope of Work for the North Corridor FEIS is designed to serve the following purposes:

- Update all of the socio-economic factors presented in the earlier draft FEIS;
- Update the analysis of the existing traffic conditions;
- Prepare Opening Year (2010) model projections for transit ridership and traffic based on the implementation schedule for the People's Transportation Plan (PTP);
- Prepare Build-Out (2025) model projections for transit ridership and traffic based on implementation schedule for the PTP;
- Develop new feeder bus plans based upon the PTP;
- Develop new Operating and Maintenance (O&M) costs to reflect the latest MDT O&M model and background system as adopted in the PTP;
- Update the capital unit costs;
- Provide an analysis for the Locally Preferred Alternative (LPA) consistent with U.S. Department of Transportation (DOT), FTA, Council on Environmental Quality (CEQ), National Environmental Policy Act (NEPA), and other applicable federal and State of Florida statutes, regulations and guidelines;
- Revisit the rail alignment to minimize right-of-way impacts and finalize the rail alignment, stations and park-ride facilities based upon the latest conditions in the corridor;
- Revise the right-of-way cost estimate; and,
- Prepare a FEIS document.

The additional work described herein will be completed in 7 months after receiving notice to proceed from MDT for this work.

### **A. PROJECT MANAGEMENT/PROJECT ADMINISTRATION**

#### **Purpose**

This task will supply the necessary efforts to manage subconsultants; attend meetings; prepare agendas and minutes; process progress reports; billings and payments; document control, and coordinate with the MDT.

#### **A.1 PROJECT MANAGEMENT/PROJECT ADMINISTRATION**

##### **Methodology**

The Project Manager (PM) will provide overall guidance and direction to the assembled team and assigned subconsultants. The PM's staff will provide contract administration, human resources, invoicing and clerical services.

## **Products**

1. Correspondence
2. Monthly Progress Reports and Meetings
3. Subconsultant Contract Management
4. Meeting Records
5. Monthly Invoices

## **A.2 PUBLIC INVOLVEMENT**

### **Methodology**

The original Bus Rapid Transit (BRT) North Corridor FEIS Scope specified 8 meetings – 12 meetings have been held to date.

The Consultant will make an additional 12 presentations, as requested by MDT, about the status of the North Corridor project to groups, committees, agencies, and the general public. The proposal does not include preparation of any newsletters.

### **Product**

1. Presentation material
2. Minutes of all meetings
3. Update of Chapter 8 “Comments and Coordination” for the FEIS

## **A.3 COORDINATION WITH FTA**

The consultant will coordinate with Federal Transit Administration (FTA) to determine the level of documentation required to receive a ROD for the North Corridor. It is anticipated that at least two (2) meetings with the FTA will be necessary.

## **B. ENVIRONMENTAL ANALYSIS**

### **Purpose**

The purpose of this task is to prepare an updated FEIS on the LPA. The work conducted under all previous phases will be summarized to provide a transition to the new document, including a description of the process for evaluating and recommending an LPA. The rest of the document will consist of the results of detailed environmental analysis conducted on the LPA following NEPA requirements.

The CONSULTANT will perform necessary coordination with Federal, State, and local agencies, the general public, and citizens groups that have an influence upon the study and preparation of the FEIS as directed by MDT.

The CONSULTANT will prepare the content of necessary coordination letters from MDT to other agencies, the public, etc.; meeting minutes for all coordination meetings; and all official supporting environmental documents outlined in the following environmental subsections as related to the FEIS.

## **B.1 IDENTIFY ISSUES AND IMPACT AREAS REQUIRING ADDITIONAL ENVIRONMENTAL ANALYSIS**

The purpose of this task is to identify the environmental issues and impacts that need to be addressed as part of the environmental analysis conducted during the PE/FEIS phase of the project. These analyses may be required due to the time elapsed since the completion of the Administrative Draft of the FEIS.

### **Methodology**

Additional environmental analysis may be required as a result in modifications to the final LPA alignment, park-ride lots and station locations. Issues will also result from land use changes throughout the corridor due to elapsed time and changes in plans due to new traffic and ridership projections.

Other issues may also arise through contact with the public, as information is received through coordination with resource agencies, and as the design of the project is advanced and refinements are made to the location of the alignment and station facilities.

## **B.2 CONDUCT ENVIRONMENTAL IMPACT ANALYSES**

The environmental impact analyses conducted for the DEIS will be updated and revised as necessary to receive FTA approval. No task by itself will require a major effort, but the total number of tasks in this category result in a major effort. Changes to the alignment, stations, or park and ride lot locations will require a reassessment of the impacts identified in the DEIS. The environmental analysis in this task will be conducted concurrently with the design efforts so that refinements can be made to the project and impacts can be minimized.

The analysis of the project impacts will include a description of impacts under each specific environmental area, as required under NEPA and applicable FTA guidance. Baseline conditions for each of the impact areas will have been documented and included in the DEIS. To the extent practical, this baseline will be used for reassessment of the impacts of the LPA. If necessary, additional data will be collected from existing sources maintained by federal, state, and local agencies, and augmented by field studies and measurements, as appropriate.

The consultant will identify, verify, and describe all project impacts. Impacts on existing and future conditions will be assessed in terms of beneficial and adverse impacts. Direct primary, indirect (secondary), and cumulative impacts will also be considered. Impacts will be classified and their significance addressed in terms of short-term and long-term consequences.

The environmental areas to be addressed include the following issues:

### **B.2.1 Social And Economic Impacts**

#### **Purpose**

Based on FTA comments in the New Starts Report a concerted effort will be undertaken to strengthen the transit/land use connection for this project.



## **Methodology**

The FEIS work will be further developed and refined to detail project related community impacts, land use impacts/densification, local ordinances and plans, and joint development opportunities. Work will be undertaken with County Planning to document all of the plans within the corridor and to highlight the densities that could be modified as part of the transit overlay zones and the County's Urban In-fill Program.

## **Product**

1. Complete analysis of impacts to land use.
  - Identify and summarize all relevant County and State policies that affect the project;
  - Future land uses related to all County land use/transit policies;
  - Consistency with land use planning;
  - Secondary development; and,
  - Joint land use development.
2. Review impacts to utilities associated with an increased level of structural design of the preferred alternative.
3. Complete analysis of relocation impacts.
  - Review impacts to neighborhoods, businesses, and racial/ethnic groups;
  - Verify number of residential, business, and nonprofit organization relocations; and,
  - Verify property values in corridor to finalize the right-of-way costs of the preferred alternative.
4. For the LPA, conduct analysis of Environmental Justice on affected communities in accordance with Presidential Executive Order 12898.
  - Prepare socio-economic data;
  - Present avoidance measures; and,
  - Develop mitigation measures.

### **B.2.2 Visual Impacts/Aesthetics**

This section will be reused from the original North Corridor FEIS. Minor adjustments may be necessary in order to update original renderings and layouts.

### **B.2.3 Air Quality Analysis**

Air quality impacts due to the operation of the facility will be evaluated on a micro-scale basis. The analysis will include both 2010 and 2025 analysis for the No-Build, Baseline and LPA. This task will require the standard amount of work required to analyze six separate model runs.

## **Methodology**

1. Complete data collection/analysis.
  - Air quality analysis will be performed at the seven site locations analyzed in the DEIS;
  - Analysis of "worst case" Carbon Monoxide (CO) levels at each of the seven site locations will be conducted following the Environmental Protection Agency's (EPA's) "Guideline for Modeling Carbon Monoxide from Roadway Intersections";

- Vehicle emissions will be calculated using EPA's Mobile 5A emission model; and,
  - CO concentrations will be determined using EPA's CAL3QHC Version 2 dispersion model.
2. Results from the dispersion modeling will be compared to the State and National Ambient Air Quality Standards (NAAQS) to determine if the project has the potential to cause or exacerbate a violation of the NAAQS.
  3. The Results Report will be updated with all data generated by analysis of the opening year.
  4. The Air Quality Section in the FEIS will be revised to reflect the analysis of the opening year.

## **B.2.4 Noise and Vibration Impacts**

### **Purpose**

2010 and 2025 Noise and Vibration impacts for the No-Build, Baseline, and LPA will be analyzed.

Work will require re-monitoring the existing sites that were first monitored 6 years ago at the inception of the DEIS. The analysis of existing or new sites will require monitoring of both noise and vibration levels and projection of impacts. This will require the standard amount of work necessary to analyze the new model runs and additional sites.

### **Methodology**

The following tasks will be completed to determine the impact from proposed LPA alignment:

1. Site Selection: The project corridor will be surveyed and representative existing noise sensitive land uses are identified based on review of the proposed alignment maps and land use maps developed for the project. Potential noise monitoring locations should include land uses (FTA Category 2) where people normally sleep, such as, homes, hospitals, and hotels. In addition, sensitive land uses with primarily daytime activity (FTA Category 3), such as schools; libraries and churches are included in site selection. All sites will be within a 300 feet boundary either side of the proposed LPA alignment.
2. Field Data Collection: Upon completion of the site selection, ambient noise levels will be monitored continuously for a 24-hour duration at a maximum of five residential locations, and for a 20-minute duration during peak hours at five other locations. Noise levels will be measured in units of "A" weighted on 1-hour equivalent noise levels, Leq (1-hr), using state-of-the-art Type 1 noise measurement equipment. In addition to existing noise levels, existing vibration levels using calibrated equipment will be measured at five monitoring locations. Furthermore, unique sites particularly sensitive to ground-borne vibration, such as historic landmarks, will be surveyed for existing vibration levels. Overall broadband maximum vibration velocity levels will be collected at each vibration monitoring location.
3. Existing Noise Level Estimates: Utilizing the field data collected, at each site the baseline ambient conditions will be used and impacts will be assessed against future build conditions. Where valid, a comparison to existing FEIS measurements will be made.

4. Build Year Noise and Vibration Level Estimates: Utilizing the FHWA traffic noise model, STAMINA2, future peak hour traffic noise level will be estimated at each of the noise monitoring locations. Employing the procedure outlined in FTA's Guidance Manual for Transit Noise Impact Assessment (DOT Report DOT-95-16 April 1995), LPA-generated day-night noise levels will be estimated. At each site, future traffic and transit noise levels will be combined to estimate the overall future day-night noise levels. Future ground-borne vibration velocity levels will be estimated using the method recommended in the guidance manual for vibration estimates.
5. Build Year Noise and Vibration Impacts: Noise impacts will be assessed by comparing existing day-night noise levels against future predicted build day-night noise levels. The FTA's Cumulative Noise Exposure Guidelines and Ground-Borne Vibration Criteria will be used in the impact evaluation.
6. Abatement Analysis: Employing the FTA's procedures on noise abatement approximate barrier height, length and cost of each noise wall be determined. Feasibility and reasonableness of each investigated noise barrier will be included in the mitigation summary findings incorporating all reviewing agency comments.
7. Revise Results Report.

#### **B.2.5 Contamination Impacts**

##### **Purpose**

The contamination results report from the previous FEIS will be reused.

#### **B.2.6 Floodplains**

The floodplain analysis from the previous FEIS will be reused.

#### **B.2.7 Wildlife and Habitat Impacts**

##### **Methodology**

1. A complete specimen tree survey was performed along the previous alignment. A minor update will be needed because of elapsed time. Any modifications to the alignment will require an update to the tree survey.
2. Endangered Species Biological Assessment Report for affected habitat, flora, and fauna will be used from the previous FEIS.

#### **B.2.8 Energy**

##### **Methodology**

1. New 2010 and 2025 energy analysis for traffic will be completed.
2. Update Energy analysis for FEIS, including:
  - Regional energy impact of the proposed action; and,
  - Relation to state energy planning

### **B.2.9 Construction Impacts and Mitigation**

The CONSULTANT will review the previous FEIS and will update the information presented.

#### **Methodology**

- Air quality impacts
- Noise impacts
- Visual/Aesthetic impacts
- Water quality impacts from construction site storm water runoff
- Traffic maintenance and detour routing
- Maintenance of access to businesses and residences
- Safety considerations
- Public involvement and community interaction to ease disruptive affects
- Disposal of construction materials
- Stock piling of construction materials
- Use of borrow areas

### **B.3 IDENTIFY/DESIGN MITIGATION MEASURES**

The identification of design mitigation measures will list and evaluate reasonable and practical measures for avoiding impacts and minimizing harm during both construction and operation of the system. Mitigation measures will be identified in close coordination with MDT and the appropriate agencies.

The plans will identify mitigation measures for each impact, noting where authority and responsibility for carrying out these measures reside. The mitigation measures will be incorporated into the FEIS.

Mitigation measures that may be developed include:

- Landscaping at specific locations for homes that front on the alignment;
- Berms around stations and park-ride lots to insulate a neighborhood;
- Local street modifications to prevent station traffic from detouring through neighborhoods;
- Early reconstruction of library facilities;
- Temporary noise walls erected during construction;
- Use of Art in Public Places program to decorate the trackway and/or sound walls; and,
- Specific Best Management Practices for drainage during construction.

#### **Products**

1. Commitments and Recommendations Section

### **B.4 IDENTIFY REQUIRED ENVIRONMENTAL PERMITS**

#### **Purpose**

The purpose of this task is to identify all federal, state, county, and local agencies requiring environmental permits. Current regulations will be verified to determine if any of the permit requirements previously identified in the draft FEIS have changed.

## **C. TRAVEL DEMAND MODEL**

### **C.1 OPENING YEAR AND BUILD-OUT NETWORKS**

The CONSULTANT will use the Travel Demand Model agreed upon during the North Corridor BRT phase of the FEIS study. The model will be updated to reflect the latest Miami-Dade and Broward County networks. An opening year and a Build-out year model will be developed to include existing 2010 and 2025 socio-economic data. The network will also be revised as necessary to reflect 2010 and 2025 scenarios.

### **C.2 YEAR 2010 AND 2025 – NO-BUILD**

Once the model is revised per the above, the CONSULTANT will run both No-Build Alternatives.

### **C.3 YEAR 2010 AND 2025 – BASELINE ALTERNATIVE**

Once the model is revised per the above the CONSULTANT will run both Baseline Alternatives.

### **C.4 YEAR 2010 AND 2025 – PREFERRED ALTERNATIVE**

Based on any alignment modifications to the LPA and the above approach, the CONSULTANT will run both Preferred Alternative runs.

#### **Product**

A travel demand forecast report will be prepared documenting the results of the six model runs.

## **D. TRAFFIC ANALYSIS**

#### **Purpose**

To document the traffic impacts of the proposed alternatives on future traffic characteristics in the area.

#### **Methodology**

Traffic impacts will be evaluated using travel demand forecasting results produced in Task C. Projected traffic conditions will be evaluated for the LPA plus the No-Build and Baseline alternatives for AM and PM peak hours for both 2010 and 2025 scenarios. A program of proposed improvements at major intersections and access points to stations will be developed to support and enhance the transportation plan for each alternative. The proposed improvements will be based on the individual elements analysis using the Highway Capacity Software and FDOT guidelines.

#### **Deliverables**

1. Traffic Report.

## **E. PRELIMINARY ENGINEERING**

### **E.1 REFINE THE PREFERRED ALTERNATIVE**

To examine the previous alignment to determine if right-of way savings can be accrued by utilizing a longer guideway span and by relocating sections of the alignment into the public right-of-way.

#### **Product**

1. Revised Plan and Profile Drawings

### **E.2 CROSS-SECTIONS**

1. The cross-sections developed during the previous phase of the work will need to be modified to reflect a wider column design necessary to support a longer guideway span.

### **E.3 STATION PLANS**

#### **Methodology**

1. It is estimated that three stations will need to be revised: 166<sup>th</sup> Street (Palmetto), 183<sup>rd</sup> Street, and 215<sup>th</sup> Street (Turnpike) will be relocated and redesigned. Based on the revised horizontal and vertical alignment drawings, preliminary plans to the 15 percent level of completion for these three elevated stations will have to be prepared. The location and preliminary layout for the elevated stations will be documented, including the arrangement on the site and their relationship to existing and proposed residential and business activity centers.
  - Station area plans will include site plans showing station location, long-term parking, short term parking (kiss-ride), circulation roads and landscaping areas;
  - Patron access will be shown including direction and mode of access (car, bus, or walking);
  - The location and function of attached garages/parking lots will be established;
  - The station exterior elevation will be shown for the elevated stations indicating entrance locations, and the mass and proportions of the structure;
  - The interior floor plans of all stations will show locations of rooms, to the extent known, their function and sizes. The public areas will be laid out along with stairs, escalators, elevators and fare collection equipment;
  - Longitudinal sections of the mezzanine, and platform and horizontal sections of the aerial stations will be developed to provide an overall understanding of the size of the station, its site and attached garages, as well as clearances and massing; and,

- Preliminary planning of mechanical and electrical systems will be conducted to determine the general location of mechanical and electrical installations for assessing potential environmental impacts, for the elevated stations.

#### **Product**

1. Station area layout plans at the scale of 1"= 50'.

### **E.4 CIVIL SITE AND DRAINAGE PLANS**

#### **Methodology**

1. Assess the impact of modifications to the previous transit alignment on the existing conditions and prepare civil site plans at 1"=100' showing the following:
  - Existing topography;
  - Proposed roadway rearrangements; and,
  - Miscellaneous improvements such as sidewalks, fencing and street lighting
2. Propose layout, tie-in, and the cost of extending sanitary sewer lines to the stations.
3. Any changes to the alignment and station locations will be examined for their impact on site drainage.

#### **Product**

1. Preliminary Civil Site Plans

### **F. CAPITAL COSTS AND CONSTRUCTION PHASING**

#### **F.1 COST ESTIMATING**

#### **Methodology**

1. Based on the methodology developed under the previous work, update the unit costs and then recalculate the capital cost estimates incorporating the modifications to the transit plans and taking into account the greater detail of development of the project plans.
2. Update the right-of-way cost estimate based on the new plans and a complete reassessment of the values of real estate as provided by the County. Each parcel affected either by a full take or a partial take will be evaluated as to the type of occupancy i.e., residential or business, whether it is improved, unimproved or public lands will be evaluated as to the reasonable purchase price of that parcel.

#### **F.2 O&M COST ESTIMATING**

1. Update the operations and maintenance cost based on updated cost trends.

### **F.3 PROJECT IMPLEMENTATION PLANS**

1. A Preliminary Engineering Schedule will be prepared for the design and construction phase of the project, in bar chart format, covering all significant work tasks. Identified therein will be work items, tasks and milestones that affect MDT and third parties and events, which are affected by the actions.
2. A new cash flow analysis will be performed to reflect the recent ½ cent sales tax funds, the new FTA funding assumptions and the new cost estimate for the project.
3. The CONSULTANT will the proposed funding package required to construct, maintain and operate the North Corridor LPA.

### **G PREPARE FEIS**

#### **G.1 PREPARE DRAFT-FEIS**

##### **Purpose**

To prepare a draft-FEIS document for review by MDT and other participating agencies.

##### **Methodology**

The CONSULTANT will assemble the documentation prepared under each phase of the work into a draft-FEIS document that summarizes the results of the environmental analysis. The draft-FEIS will be submitted to MDT and other participating agencies for their review and comment.

##### **Product**

1. Draft-FEIS

#### **G.2 RESPOND TO DRAFT-FEIS COMMENTS AND PREPARE FINAL FEIS**

##### **Purpose**

To prepare the final version of the FEIS document.

##### **Methodology**

The CONSULTANT will coordinate and respond to comments received on the draft-FEIS, incorporate comments as appropriate, and complete the final version of the FEIS document for public distribution.

##### **Product**

1. Final version of FEIS for public distribution



### **G.3 CIRCULATE FEIS**

#### **Purpose**

Distribution of the FEIS to the parties that received the DEIS. Provide legal notification to the public that the North Corridor's preferred alternative has received a ROD from FTA and that the project is being advanced to the next phase.

#### **Methodology**

1. The CONSULTANT will prepare and distribute approximately 200 copies of the FEIS.
2. The CONSULTANT will place the notification in the local newspapers, as required, upon receipt of the ROD.

**Attachment "B-1"**  
**NORTH CORRIDOR METRORAIL FEIS**  
**COMPENSATION SCHEDULE**

**Table 1**  
**Re-evaluation of Alternative Work**

| FIRM NAME                                | LABOR            | OH RATE | BURDEN (OH)      | SUBTOTAL<br>BURDENED<br>LABOR | FIXED FEE<br>(10% PER<br>CONTRACT) | DIRECT<br>EXPENSES | PRINCIPALS      | TOTAL            |
|--|------------------|---------|------------------|-------------------------------|------------------------------------|--------------------|-----------------|------------------|
| HNTB Corporation                         | \$71,485         | 152.7%  | \$109,157        | \$180,642                     | \$18,064                           | \$9,896            | \$0             | \$208,602        |
| PBQ&D                                    | \$73,784         | 153.0%  | \$112,889        | \$186,673                     | \$18,667                           | \$18,955           | \$0             | \$224,295        |
| B. Mumford & Company                     | \$0              | 0.0%    | \$0              | \$0                           | \$0                                | \$26,494           | \$25,340        | \$51,834         |
| EAC Consulting                           | \$24,055         | 166.0%  | \$39,931         | \$63,986                      | \$6,399                            | \$454              | \$0             | \$70,838         |
| Glass Land Property Acquisition Services | \$0              | 166.0%  | \$0              | \$0                           | \$0                                | \$0                | \$0             | \$0              |
| Milian-Swain & Associates                | \$0              | 0.0%    | \$0              | \$0                           | \$0                                | \$0                | \$0             | \$0              |
| <b>TOTALS</b>                            | <b>\$169,323</b> |         | <b>\$261,977</b> | <b>\$431,301</b>              | <b>\$43,130</b>                    | <b>\$55,798</b>    | <b>\$25,340</b> | <b>\$555,569</b> |

**TABLE 2**  
**Re-evaluation of Alignment Work**

| FIRM NAME                                | LABOR           | OH RATE | BURDEN (OH)      | SUBTOTAL<br>BURDENED<br>LABOR | FIXED FEE<br>(10% PER<br>CONTRACT) | DIRECT<br>EXPENSES | PRINCIPALS      | TOTAL            |
|--|-----------------|---------|------------------|-------------------------------|------------------------------------|--------------------|-----------------|------------------|
| HNTB Corporation                         | \$32,785        | 152.7%  | \$50,062         | \$82,845                      | \$8,283                            | \$368              | \$0             | \$91,496         |
| PBQ&D                                    | \$15,478        | 153.0%  | \$23,682         | \$39,160                      | \$3,916                            | \$143              | \$0             | \$43,219         |
| B. Mumford & Company                     | \$0             | 0.0%    | \$0              | \$0                           | \$0                                | \$31,247           | \$25,810        | \$57,057         |
| EAC Consulting                           | \$8,789         | 166.0%  | \$14,590         | \$23,380                      | \$2,338                            | \$174              | \$0             | \$25,892         |
| Glass Land Property Acquisition Services | \$16,602        | 166.0%  | \$27,559         | \$44,162                      | \$4,417                            | \$272              | \$0             | \$48,850         |
| Milian-Swain & Associates                | \$0             | 0.0%    | \$0              | \$0                           | \$0                                | \$0                | \$0             | \$0              |
| <b>TOTALS</b>                            | <b>\$73,654</b> |         | <b>\$115,893</b> | <b>\$189,546</b>              | <b>\$18,954</b>                    | <b>\$32,203</b>    | <b>\$25,810</b> | <b>\$266,514</b> |

**TABLE 3**  
**Combined Alternative and Re-alignment Work**

| FIRM NAME                                | LABOR            | OH RATE | BURDEN (OH)      | SUBTOTAL<br>BURDENED<br>LABOR | FIXED FEE<br>(10% PER<br>CONTRACT) | DIRECT<br>EXPENSES | PRINCIPALS      | TOTAL            |
|--|------------------|---------|------------------|-------------------------------|------------------------------------|--------------------|-----------------|------------------|
| HNTB Corporation                         | \$104,269        | 152.7%  | \$159,219        | \$263,488                     | \$26,348                           | \$10,263           | \$0             | \$300,099        |
| PBQ&D                                    | \$89,262         | 153.0%  | \$136,571        | \$225,832                     | \$22,583                           | \$19,098           | \$0             | \$267,513        |
| B. Mumford & Company                     | \$0              | 0.0%    | \$0              | \$0                           | \$0                                | \$57,741           | \$51,150        | \$108,891        |
| EAC Consulting                           | \$32,844         | 166.0%  | \$54,521         | \$87,366                      | \$8,737                            | \$628              | \$0             | \$96,730         |
| Glass Land Property Acquisition Services | \$16,602         | 166.0%  | \$27,559         | \$44,162                      | \$4,417                            | \$272              | \$0             | \$48,850         |
| Milian-Swain & Associates                | \$0              | 0.0%    | \$0              | \$0                           | \$0                                | \$0                | \$0             | \$0              |
| <b>OVERALL TOTALS</b>                    | <b>\$242,978</b> |         | <b>\$377,870</b> | <b>\$620,847</b>              | <b>\$62,084</b>                    | <b>\$88,002</b>    | <b>\$51,150</b> | <b>\$822,083</b> |

Note - Revisions to the allocations shown are permissible, subject to approval by the MDT Director or his authorized representative.